Chapter I

Supporting Collaborative Project Teams Using Computer-Based Technologies

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ABSTRACT

This chapter considers computer-supported collaborative learning within the context of a technology-supported project-based subject offered to advanced-level students in a postgraduate education program. The subject was the focus of a qualitative case study investigation that revealed how student teams worked together on an authentic project task and the role online tools play in supporting their collaboration. This chapter discusses the research and conceptual literature that informed the design of the learning environment, the nature of the research study and the relevant findings, and some of the practical implications for teachers and designers in selecting online tools to support collaborative learning.
INTRODUCTION

The study presented in this chapter investigated learners’ experiences of a technology-supported learning environment in which they worked in small teams on authentic project tasks to develop a multimedia product for a real client. The students were enrolled in an advanced-level subject in a Master of Education program, with most studying part time, often at a distance from the main campus. The researcher collected data in the form of assignment work, discussion records and interviews. Analysis of the data revealed the challenges experienced by the students as they worked on their group projects, the teamwork issues that arose and the strategies adopted in response.

The purpose of this chapter is to describe a particular implementation of a computer-supported collaborative learning environment and the students’ experiences within it. The findings presented in this chapter focus on the role of online tools and their effectiveness in supporting collaboration. While these findings are of greatest relevance to the particular subject from which they were derived, teachers and designers interested in using online technologies to support collaborative learning will find the practical implications relevant to their own teaching situations.

The following sections describe: the background of the study in terms of the relevant literature; the design and implementation of the subject, including the nature of the collaborative task and the theoretical underpinnings; the details of the research study; a summary of the relevant findings and a discussion of the implications for the subject and beyond.

BACKGROUND

Developing Collaborative Skills through Authentic Learning

Helping students develop the interpersonal skills that underpin collaboration is an essential part of preparation for the world of work. A capacity for and understanding of teamwork, along with critical thinking, adaptability and self-evaluation is one of the generic skills that a university education should develop (Candy, Crebert, & O’Leary, 1994). This belief is reflected in the attributes that universities aim for their graduates to acquire (see, for example, Griffith University, n.d.; University of Canberra, n.d.; University of Wollongong, n.d.). While learning through small group tutorials and laboratory work in pairs has long been part of university study, traditional pedagogical approaches in tertiary education have tended to decontextualize knowledge and skills in ways that remove the links to real-world application (McLoughlin, 2002). This situation presents a challenge for many educators as they seek to develop group-based
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